GREAT BASIN MINE WATCH
SIERRA CLUB, TOIYABE CHAPTER

IBLA 97-67 Decided March 5, 1999

Appeal from a Decision and a Record of Decision of the Acting District Manager, Winnemucca District, Nevada, Bureau of Land Management, approving a Plan of Operations for the Lone Tree Mine Expansion. N26-93-002P.

Appeal dismissed in part; decision affirmed.

1. Environmental Quality: Environmental Statements--Mining Claims: Plan of Operations--National Environmental Policy Act of 1969: Environmental Statements

   BLM's approval of a plan of operations for open pit gold mining will be affirmed when an environmental impact statement shows that BLM has taken a hard look at all of the significant environmental consequences of mining operations, including the impacts to surface and groundwater.

APPEARANCES: Glenn C. Miller and Tom Myers, Great Basin Mine Watch, and Sierra Club, Toiyabe Chapter, Reno, Nevada, for the Great Basin Mine Watch and Sierra Club, Toiyabe Chapter; John F. Shepherd, Esq., Denver, Colorado, and Richie D. Haddock, Esq., Santa Fe Pacific Gold Corporation, Reno, Nevada, for Intervenor Santa Fe Pacific Gold Corporation; Ron Wenker, District Manager, Winnemucca District, Nevada, Bureau of Land Management, U.S. Department of the Interior, for the Bureau of Land Management.

OPINION BY ADMINISTRATIVE JUDGE KELLY

The Great Basin Mine Watch (Great Basin) and the Sierra Club, Toiyabe Chapter (Sierra Club), have appealed from a Decision and a Record of Decision (ROD) of the Acting District Manager, Winnemucca District, Nevada, Bureau of Land Management (BLM), both dated October 15, 1996, approving Plan of Operations N26-93-002P, submitted by the Santa Fe Pacific Gold Corporation (SFPG) for the Lone Tree Mine Expansion. By Order dated February 14, 1997, we granted SFPG's motion to intervene in this proceeding.

The proposed action would expand SFPG's existing open pit gold mining operation, resulting in additional land disturbance of 847.6 acres of public land and 176 acres of private land. SFPG proposed to join

two existing pits in secs. 11 and 13, T. 34 N., R. 42 E., Mount Diablo Meridian, Humboldt County, Nevada; the mine pit expansion would encompass 114.5 acres of public land. Because the expanded pit, like the original, would extend below the water table, SFPG would continue its dewatering operations. Most of the water would continue to be discharged into the Humboldt River, about 11 miles to the northwest, after being processed in the new cooling pond and water treatment facility. Under the proposed action, dewatering/discharging operations would, along with mining operations, be extended through the year 2006.

On February 17, 1994, BLM published notice that, in order to assess the environmental consequences of approving SFPG's proposed Plan of Operations, it would prepare an Environmental Impact Statement (EIS) in accordance with section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA), as amended, 42 U.S.C. § 4332(2)(C) (1994). The Draft EIS, prepared by a third-party contractor (Maxim Technologies, Inc. (Maxim)) with input from other third-party contractors, was not finalized until after it had been reviewed by BLM's interdisciplinary staff of resource experts.

Following the submission of public comments in response to publication of a notice of the availability of the Draft EIS in the Federal Register on December 13, 1995 (60 Fed. Reg. 64069 (Dec. 13, 1995)), BLM issued a Final EIS on September 13, 1996. Subsequently, on October 15, 1996, the Acting District Manager rendered his Decision and ROD approving SFPG's proposed Plan of Operations, subject to various stipulations and mitigation measures. Great Basin and Sierra Club jointly appealed therefrom.

On appeal, SFPG and BLM argue that because Great Basin did not file comments on the Draft EIS, its appeal should be dismissed for lack of standing on the basis that it is not a "party to a case," as required by 43 C.F.R. § 4.410(a). In its Reply, Great Basin concedes that it did not file such comments, and states that it does not contest the standing issue. Accordingly, Great Basin's appeal is dismissed for lack of standing because it is not a party to this case, as required by 43 C.F.R. § 4.410(a).

We turn to the merits of the appeal by the Sierra Club (Appellant). The primary contention by Appellant is that BLM's EIS failed to adequately consider the fact that SFPG's proposed expanded mining operations have a "substantial probability of adversely affecting groundwater levels and surface flows in much of the Humboldt River basin, the largest drainage basin in the State of Nevada, thereby impacting many environmental values." (Statement of Reasons for Appeal (SOR) at 1.) It argues that BLM's failure to properly assess the surface and groundwater impacts resulted from BLM's reliance on "faulty hydrologic assumptions and models" to predict such impacts, thus rendering BLM's final decision to approve SFPG's proposed operations "scientifically invalid." (SOR at 1.) Appellant concludes that BLM has violated section 102(2)(C) of NEPA.

[1] It is well established that under section 102(2)(C) of NEPA, the adequacy of an EIS must be judged by whether it constituted a "detailed statement," which took a "hard look" at the potential significant environmental consequences of the proposed action, and reasonable alternatives thereto, considering all relevant matters of environmental concern. 42 U.S.C. § 4332(2)(C) (1994); Colorado Environmental Coalition (CEC), 142 IBLA 49, 52 (1997), and cases cited.

In general, an EIS must fulfill the primary mission of section 102(2)(C) of NEPA, which is to ensure that BLM, in exercising the substantive discretion afforded it to approve or disapprove mining operations, is fully informed regarding the environmental consequences of such action. 40 C.F.R. §§ 1500.1(b) and (c); Natural Resources Defense Council, Inc. v. Hodel, 819 F.2d 927, 929 (9th Cir. 1987). In deciding whether an EIS promotes informed decisionmaking, it is well settled that a "rule of reason" will be employed. As the court stated in County of Suffolk v. Secretary of Interior, 562 F.2d 1368, 1375 (2d Cir. 1977), cert. denied, 434 U.S. 1064 (1978):

> [A]n EIS need not be exhaustive to the point of discussing all possible details bearing on the proposed action but will be upheld as adequate if it has been compiled in good faith and sets forth sufficient information to enable the decisionmaker to consider fully the environmental factors involved and to make a reasoned decision after balancing the risks of harm to the environment against the benefits to be derived from the proposed action, as well as to make a reasoned choice between alternatives.

The critical question is whether the EIS contains a "reasonably thorough discussion of the significant aspects of the probable environmental consequences" of the proposed action and alternatives thereto. State of California v. Block, 690 F.2d 753, 761 (9th Cir. 1982) (quoting Trout Unlimited v. Morton, 509 F.2d 1276, 1283 (9th Cir. 1974)).

When BLM has complied with the procedural requirements of section 102(2)(C) of NEPA, by actually taking a hard look at all of the likely significant environmental impacts of a proposed action, it will be deemed to have complied with the statute, regardless of whether a different substantive decision would have been reached by this Board or a court (in the event of judicial review). See Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227 ! 28 (1980), and cases cited. As we said in Oregon Natural Resources Council, 116 IBLA 355, 361 n.6 (1990):

> [Section 102(2)(C) of NEPA] does not direct that BLM take any particular action in a given set of circumstances and, specifically, does not prohibit action where environmental degradation will inevitably result. Rather, it merely mandates that whatever action BLM decides upon be initiated only after a full consideration of the environmental impact of such action.

In order to overcome BLM's decision to proceed with mining operations, Appellant must carry its burden to demonstrate by a preponderance of the evidence, with objective proof, that BLM failed to consider, or to adequately consider, a substantial environmental question of material significance to the proposed action or otherwise failed to abide by section 102(2)(C) of NEPA. See CEC, 142 IBLA at 52.

There is no dispute that a substantial quantity of water will be removed from the aquifers underlying the mine pit and discharged to the Humboldt River during mining operations. BLM projected that the expansion of the mine would result in the removal of an additional 600,000 acre-feet of water through the year 2006. (Draft EIS at 4-8.) BLM stated that dewatering the mine pit and discharging the water to the Humboldt River would, during the life of the mine, cause a groundwater deficit in the local Humboldt River sub-basin which encompasses the pit. (Final EIS at 4-39.) However, BLM also stated that such activities would not create a groundwater deficit in the overall Humboldt River Basin, but would merely result in redistribution of water within the basin. (Final EIS at 4-39.)

Appellant objects to this reasoning, arguing that there will be a deficit in the overall basin which BLM failed to take into account. It argues that, for the most part, the water discharged to the river will enter the Rye Patch Reservoir, thereby enlarging the surface area of the reservoir and increasing the amount of water lost to the overall basin through evaporation.

BLM took evaporation into account, but recognized that it was difficult to precisely gauge the impact because it was hard to determine exactly how much discharged water (as opposed to water from precipitation and other sources) reached the reservoir, stayed there, and ultimately was lost to evaporation. In any event, BLM did not regard it as a significant impact requiring detailed analysis.

Appellant has presented no evidence of the extent to which the surface area of the reservoir will be increased as a consequence of SFPG's mining operations or, ultimately, the quantity of discharged water which reaches the reservoir and then is lost to evaporation. It has therefore failed to demonstrate that there will be any appreciable increase in the amount of water lost to evaporation and therefore to the overall basin. Nor has it thus offered any factual support to contradict BLM's conclusion that there will be no significant impact to the overall Humboldt River Basin from mine dewatering/discharging operations.

Appellant contends that it is likely that the discharge from the mine pit will keep the Rye Patch Reservoir "much fuller for some years and increase the chance of wastage over the spillway," and argues that BLM failed to analyze the impact of this water on the Humboldt Sink. (SOR at 8.)

BLM indicates there is little chance for wastage from the reservoir's spillway, predicting that "[u]nder most conditions, additional flow resulting from the Lone Tree Mine discharge would be retained by this reservoir."

(Draft EIS at 4-32.) Moreover, BLM states that "most mine water discharged directly into the Humboldt River is not expected to reach the Humboldt Sink." (Draft EIS at 4-77.) BLM explains that prior to reaching the Sink, excess water would normally be consumed by natural losses, agricultural diversions, or storage in the Rye Patch Reservoir for agricultural use.

Appellant's projected overflow from the reservoir would not occur until water is being discharged at the maximum anticipated rate, which is not expected to occur until the last year of mining operations. (Draft EIS at 2-39.) Moreover, even if spillage from the reservoir does occur, Appellant has failed to show that it will result in any adverse impact to the quality of water in the Humboldt Sink.

Appellant asserts that BLM failed to adequately consider the impacts to the Humboldt River caused by the refilling of the mine pit at the conclusion of mining operations. It challenges BLM's calculation of the impact of pit refilling on river flow, concluding that it will be much larger.

BLM concluded that the flow of the river was likely to decrease as a result of water being drawn into the expanded pit and the surrounding area affected by dewatering operations in that pit. (Draft EIS at 4-32; Final EIS at 3-28.) BLM determined the extent of water loss based on its interdisciplinary review of a third-party hydrogeologic investigation undertaken by Hydrologic Consultants, Inc. (HCI), which used a recognized groundwater model (MINEDW). BLM stated that this slight decrease in flow might be detectable at times of low flow during the late summer/early fall, but otherwise would have no significant impact. (Draft EIS at 4-32; Final EIS at 3-28.)

Appellant disagrees, asserting that BLM's river flow calculations relied on erroneous assumptions regarding the character of the river, while Appellant's calculations did not. These assumptions concern the "hydraulic conductivity" along the bottom of the river, the overall "leakance" along the river, and whether the river is "connected" to the water table. (SOR at 3-7.)

Relying on a February 25, 1997, affidavit of Thomas M. Hanna, a hydrogeologist with HCI, SFPG argues that BLM, rather than Appellant, used the correct assumptions in calculating the anticipated impact to river flow from pit refilling:

> First, [BLM's] model did not use an unrealistically low hydraulic conductivity value for the valley alluvium. It used a horizontal conductivity of 0.1 ft/day, and a vertical conductivity of 0.001 ft/day, values that are consistent with the shallow alluvial materials in [the] Humboldt River bed (silty sand, silt and clay). [Affidavit of Thomas M. Hanna] [paragraph] 8(e); Draft EIS at 3-40, 3-48, 4-11, 4-32 (regarding silty and clayey river bottom).

> Second, the leakance factor for the EIS model -- about 0.035 day^{-1} -- was derived from a steady-state calibration of the model incorporating measured water levels, known river losses, evapotranspiration rates, and recharge. This is standard practice. Hanna Aff. [paragraph] 9. If [Appellant] had used correct input values, it would have derived a leakance factor very close to the value used in the EIS model. Id. [paragraph] 8(c). A critical flaw in [Appellant's] calculations is that the calculations ignore the actual pre-mining flow loss of 7.8 cfs in the reach of the Humboldt River that runs past the Lone Tree Mine. Id. [paragraph] 8(d).
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> Third, contrary to [Appellant], the river should not be modeled as connected to the water table. In fact, the river is disconnected from the water table through most of the Humboldt River hydrological study area. Id. [paragraph] 10(b) and (c). The model takes into account short reaches of the river where the aquifer is connected to the river. Id. at [paragraph] 10(c). The well data cited by [Appellant] does not support its position. Id. [paragraph] 10(a).

(SFPG Answer at 11-12.)

Appellant has failed to establish that its objection to BLM's calculation of the decrease in river flow attributable to mine pit refilling amounts to anything more than a disagreement between experts. We have long held that the Department is entitled to rely on the reasoned analysis of its experts. See West Cow Creek Permittees v. BLM, 142 IBLA 224, 238 (1998), and cases cited. Further, in order to overcome BLM's evaluation, Appellant must do more than offer a contrary opinion; it "must show by a preponderance of the evidence, that BLM erred when collecting the underlying data, when interpreting the data, or when reaching the conclusion." Id. Appellant makes no such showing here.

Appellant objects to BLM's groundwater modeling on the basis that it improperly determined the source of the water which will, within a projected 23 years, purportedly eliminate 90 percent of the deficit of water in the aquifers caused by dewatering operations (or 900,000 acre-feet). It calculates that, in order to thus recharge the aquifers during that time period, given an expected rate of recharge from precipitation of 0.54 inches/year, water will have to come from a surrounding recharge area 869,000 acres in size: "This is clearly not possible. Or, if it were, it would dry every spring, riparian zone, and well within the recharge zone." (SOR at 7.)

BLM changed its position in the Final EIS, concluding that it would take 42 years to eliminate 90 percent of the water deficit in the aquifers, thus reducing the necessary recharge area by almost half. (Final EIS at 3-22.) In its Reply, Appellant disputes BLM's revised area, but

fails to demonstrate that BLM is incorrect in stating that water from all sources, principally underground formations, but also the Humboldt River, direct precipitation, and evapotranspiration salvage, will be sufficient to substantially recharge the aquifers over that time period.

Appellant argues that after mining, the remaining contaminated pit lake water will have the potential to adversely affect birds and other wildlife, and to degrade groundwater supplies in the area, both in violation of State law. It also argues that the quality of that water is likely to be substantially worse than predicted by BLM, since the geochemical modeling used by BLM to predict water quality "ha[s] never been validated on any pit lake of similar size." (SOR at 10.)

In its Final EIS, BLM used geochemical modeling to predict the quality of pit lake water following mining, concluding that it would pose little or no threat to birds or other wildlife or to the groundwater supplies in the area. (Final EIS at 3-30 to 3-31, 3-33, 4-14 to 4-15, Appendices D and E.) BLM noted that the proper use of such modeling, given the input of "good site-specific data," which was the case here, should be a "superior method of water quality prediction than the use of existing water quality from other pit lakes." (Final EIS at 4-35; see id. at 4-36.) Further, BLM required SFPG to monitor water quality in the pit lake and nearby wells and to implement mitigation measures, acceptable to BLM and the responsible State agency (Nevada Division of Environmental Protection), should any degradation occur in the future. (ROD at 1, 4-5.)

Appellant has failed to demonstrate that BLM's geochemical modeling has, in any particular instance, failed to correctly predict the quality of pit lake water or that it was generally not adequate to do so in the case of the Lone Tree Mine.

Appellant avers that BLM failed to consider two reasonable alternatives to the proposed action, in violation of section 102(2)(C) of NEPA and its implementing regulations. These alternatives are (1) discharging the water taken from the mine pit during mining operations, either in whole or in part, into Pumpernickel Valley, rather than into the Humboldt River, so as to recharge the groundwater and (2) partially or completely backfilling the mine pit following the conclusion of mining operations, so as to prevent the accumulation of water in the abandoned pit.

BLM is required by section 102(2)(C) of NEPA and its implementing regulations to rigorously explore and objectively evaluate all reasonable alternatives to a proposed action, which will accomplish its intended purpose, are technically and economically feasible, and yet have a lesser or no impact. 40 C.F.R. §§ 1501.2, 1502.1, and 1502.14; Headwaters, Inc. v. BLM, 914 F.2d 1174, 1180 (9th Cir. 1990).

In the present case, BLM considered the alternatives of discharging water into the Pumpernickel Valley and backfilling the mine pit, but eliminated them from detailed analysis because they were not found to

be reasonable alternatives. (Draft EIS at 2-52 to 2-55.) BLM concluded that discharging water into the Pumpernickel Valley would not result in any appreciable recharge to the groundwater, due to the valley's geology:

> [Tests] indicat[e] that the bedrock intercepted by * * * wells may be connected to the groundwater cone of depression developing at the Lone Tree Mine. Therefore, reinjection into bedrock in the Pumpernickel Valley probably would recirculate at least a portion of the water back to the mine's dewatering system and cause higher dewatering rates.
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> [Test] [r]esults show that the permeability of the alluvium in this area appears to be relatively high; however, the shallow depth to the water table limits the rate at which water can infiltrate into the subsurface. Additionally, the infiltration capacity of the pits probably would decrease with time as a result of siltation. A very large pond surface area would be required to achieve the necessary infiltration capacity, resulting in significant land disturbance and evaporation losses.

(Draft EIS at 2-52; see Final EIS at Appendix J.)

BLM concluded that backfilling the pit was not a reasonable alternative because it would: (1) cost over $275 million to move about 555 million tons of overburden; (2) require 10 to 14 years to complete after mining had ceased; (3) adversely impact air quality as a result of fugitive dust and vehicle emissions caused by backfilling operations; and (4) prohibit the future mining of additional gold reserves below the depth of the proposed expanded mine pit because of the costs to first remove the backfilled material. (Draft EIS at 2-53; Final EIS at 4-27.)

Appellant does not contradict BLM's assessment of discharging the water into the Pumpernickel Valley or backfilling the mine pit. Thus, we conclude that the level of analysis in the EIS concerning such alternatives complies with section 102(2)(C) of NEPA and its implementing regulations.

Finally, Appellant contends that the procedure used by BLM in selecting a third-party contractor to prepare the EIS was "substantially flawed and fraught with a conflict of interest," because it resulted in SFPG having "effective veto authority" over BLM's selection of the contractor. (SOR at 9.)

BLM asserts that while it considered SFPG's recommendation, BLM alone selected Maxim from among nine contractors who had submitted bids/proposals in response to a solicitation by BLM. See also Affidavit of Cynthia M. DeWeese, dated Feb. 24, 1997 (Ex. B attached to SFPG Answer) at 1-2. BLM and SFPG argue that this procedure conformed to applicable regulations and BLM policy, afforded SFPG no veto authority over selection of the third- party contractor, and created no conflict of interest. We agree.

In summary, Appellant has not carried its burden to demonstrate, with objective proof, that BLM failed to consider or to adequately consider a substantial environmental problem of material significance to the proposed action or otherwise failed to abide by section 102(2)(C) of NEPA. See CEC, 142 IBLA at 52. The fact that Appellant has a differing opinion about likely significant environmental impacts or prefers that BLM take another course of action does not establish that BLM violated the procedural requirements of NEPA. See San Juan Citizens Alliance, 129 IBLA 1, 14 (1994).

Therefore, we conclude that the Acting District Manager's October 15, 1996, Decision and ROD approving SFPG's proposed Plan of Operations for the Lone Tree Mine Expansion were appropriate. To the extent Appellant has raised other arguments not specifically addressed herein, they have been considered and rejected.

Accordingly, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 C.F.R. § 4.1, Great Basin's appeal is dismissed, and the Decision and ROD appealed from are affirmed.

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John H. Kelly
Administrative Judge

I concur:

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Bruce R. Harris
Deputy Chief Administrative Judge